



Governor's Solar Advisory Task Force
Draft Minutes

Date: Thursday, October 25, 2012

Time: 2:00 p.m. - 4:00 p.m.

Location: 1700 W. Washington, Phoenix, AZ 85007
State Capitol, Executive Tower, Governor's 2nd Floor Conference Room

Co-Chairs: Leisa Brug, Director, Governor's Office of Energy Policy
Glenn Hamer, President/CEO, Arizona Chamber of Commerce & Industry

Invitees: Appointed members of the Task Force and Guests

Members Present: Brad Albert, APS; John Blair, Sulphur Springs Valley Electric Cooperative, Inc.; Leisa Brug, Governor's Office of Energy Policy; Franc Del Fosse, Snell & Wilmer, LLP; Glenn Hamer, Arizona Chamber of Commerce & Industry; Herb Hayden, Southwest Solar; David Hutchens, UniSource, Tucson Electric Power; Kate Maracas, Abengoa Solar; Michael Neary, AriSEIA Arizona Solar Energy Industries Association; Georg Seitts, Rose Law Group, pc; Polly Shaw, Suntech; Robert Wanless, M + W Group; Laurie Woodall, URS

Members Absent: Charles Duckworth, SRP; Patrick Graham, The Nature Conservancy; Allison Hoskins-Suriano, Kennedy Partners; David Martin, Associated General Contractors; Sean Seitz, American Solar Electric; James Strock, Serve to Lead, Inc..

Guests: Eddie Arreola, BLM; Jim Arwood, NASEO; Allison Bell, APS; Kirk Busch, AZ4Solar; Ian Calkins, Copper State; Tom Cooper (for Charles Duckworth), SRP; John Cordes, CGS; Mick Dalrymple, ASU; Chris Davey, Enviromission; Michelle De Blasi, GT; Trisha Ekenberg, Governor's Office of Energy Policy; Teresa Harris, GES; Tom Harris; PV Advanced Concepts; Rebecca Heick, BLM; Randy Jacoby, Power-One; Jamie Kern, ASU; Gretchen Kitchel, SRP; Susan Kolbe, Kolbe Connect; Rob Kuhfuss, Maricopa County Planning and Development; Maren Mahoney, ASU; Joe McGuirk, Sun Miner; Blaine Miller, Governor's Office of Energy Policy; Matthew Miller, ASU; Steven Moortel, Lewis and Roca; Steve Olea, ACC; Amanda Ormond, Ormond Group; Neetu Rao, ASU; Craig Robb, Zions; David Rosenberg, EVM; Martin Shultz, BHES; Paul Szweczykowski, Logan Simpson Design; Jim Westberg, Governor's Office of Energy Policy

1. Call to Order

Leisa Brug called the meeting to order at 2:08pm.

2. Approval of Minutes

Minutes from the September 27, 2012 meeting were approved unanimously.

3. Solar Summit III Overview, October 9 and 10, 2012 – Neetu Rao and Matthew Miller

Neetu Rao: Matt and I have a few slides to go over on the Summit which was held at the ASU Skysong. The Summit started when we were posed with a challenge by faculty member that was visiting from Columbia who said to us, “Why aren’t we developing terawatts of energy?” And thus we formed the Summit. This was the third one and it showcased game changing efforts in the valley, showing the progress of some great projects that we have here in the valley.

Matt Miller: On the first day we had 4 different themed site visits. The first one was part of ASU and we saw some of the installations and next generation research. Then out in the southeast valley we saw a presentation by DMB on the sustainability development for Eastmark and AZCATI – the Arizona Center for Algae Technology and Innovation where there are Photobioreactors that transform algae into a variety of products. On the Phoenix tour the group went to DPR Construction’s Headquarters which is a Net-Zero office building at 44th Street and Van Buren. Then to Chase Field to see an APS installation, SheaXero Net-Zero Residential Homes at Vistancia demonstrate how distributed solar and energy efficiency work together. The Gila Bend group saw utility scale plants. The Power Parasol in Lot 59 near Rio Salado and Packard at the ASU Tempe Main Campus is a 2.1MW project which provides lots of shade and the parking spaces go for a premium. The Solana plant will be 280MW of CSP energy in 2013. The next day we had a group of panels including a Site Visit Panel which discussed the visits and summarized what we saw. There was Mayor panel that spoke about city projects. There was also a Working Group panel which spoke about a variety of different issues. Then we had an opportunity to honor Women Leaders in Solar and then we had Chris Mayes lead a panel discussion with them.

Neetu Rao: We had around 200 people attend. The dinner reception showcased some green innovation going on in Arizona and that was really exciting. In terms of next steps: the 4th summit is being planned for next October. We hope to again incorporate more site visit tours. We had a pre-summit site visit in Tucson that recognized all of their efforts in solar. There are four working groups that will continue to look at what is going on and reviewing what other groups are doing currently, and include other stakeholders. We have a mailing list and a website for you to watch progress for next year’s program and if you are interested in getting involved.

Leisa Brug: Thank you and I know it was a good use of my time.

4. Old Business

• Permitting Subgroup – Rob Wanless, Chair

Rob Wanless: If you recall at the beginning of our efforts last year we completed the Solar Permit Reform effort for Residential applications and those systems were sized 1-20kW. We came up with three metrics: stream line cost so that we can have cost certainty across jurisdictions, streamline the turn-around timeframe for approvals, and standardization of material required to get a permit. Then we began to work on the Commercial segment of the permit reform for systems that are 20-300kW. We recognize there may be some systems that are larger, but we are confident that 95% of them will be sized at 300kW or below. ASU put together a very extensive survey which was circulated to 40 jurisdictions including towns, cities, and counties, Santa Cruz County being one of them. ASU tackled about 85% of these

surveys and Bruce Plenk covered the remainder which were conducted in southern Arizona. All interviews are complete. They are in the process of getting all of the final surveys with data in to ASU and compiling that information, and Harvey is helping. We hope to have a draft off to Leisa and the group by the middle of next month, and a final draft done in time for the December submission. I know the Sunshot Initiative report is due to DOE in February so they don't quite coincide, but we could add the DOE Sunshot info as an appendix at a later date.

Blaine Miller: We have a ton of data coming in and ASU is working on that, we will have a great preliminary by December and a final in February. Jim Westberg and I met with the ASU group that has headed the zoning part of our grant. The professor that did the work there put together a very nice preliminary report. I have only a couple copies, but I can make more. There is one for desert cities and one for high country cities, and it is so well detailed. It is a really well done paper and I recommend it. We are going to take this on the road to the jurisdictions because there are many places without planning and zoning for solar so we are hoping to use this as a best practice example. We are working to get this on City Council agendas and in government areas so they can get the process started for planning and zoning, and this is part of our grant process. As long as we get it on the table we are making progress. Trisha and I had a really good meeting today at the Arizona National Bank with Kelly Dalton of City of Phoenix and Craig Robb. They are very helpful letting us know how the program got started and the progress of Solar Phoenix, which is now in Phase 2. We are trying to use that example to take out to the smaller jurisdictions that don't necessarily have that much potential in each of themselves, but if they group-up they can probably come up with enough installs that would and give them a chance to make that type of program work for a number of different communities. They can coordinate and work together on this project. We did speak with Rick Buss in Gila Bend and he said they would be interested in working with other cities and towns on a project like this. We are hoping that we can start bringing this to communities. We are hoping for 10 communities and then we will achieve our grant goals, and we are hoping when we are done we'll have a great program to take to offer other communities. This is one we can use as an in-state best practice to show them how well it does work.

Polly Shaw: Are the documents online?

Blaine Miller: I can send some to you because they haven't been finalized and published yet.

Michael Neary: You spoke of outreach – are you covering permitting issues?

Blaine Miller: Yes we are working with that too.

Michael Neary: Are there any opportunities to include solar water heating?

Blaine Miller: It is not something we can address with this grant because it was not written into the proposal, but it is certainly an option that the communities can consider.

Craig Robb: The efficiency programs cover water heating. Through SRP and APS you can finance a solar water heater.

Michael Neary: Okay, let's meet to get this information out.

Blaine Miller: I'd like to talk with you about installers because I need to set up a workshop for them.

Rob Wanless: What about working with the Arizona League of Towns and Cities?

Blaine Miller: We had a great presence out there at their recent conference. So we have been working with them.

- **Financing Subgroup – Franc del Fosse, Chair**

Franc del Fosse: Right before this meeting I distributed a draft to the Finance subcommittee of the White Paper. Brad really stepped up with his part, including his people like Jason Smith, and he produced quite a bit of information and language that we needed for the utility sections. We do still need assistance from TEP and SRP to complete the utility sections.

Brad Albert: A list of projects including a list of what we have deployed out there.

Franc del Fosse: I think that is an important part of the report that we show the successes that Arizona has had. I think we need to flush that out a bit in the report because definitely Arizona has had a lot of success. From a finance perspective I think there's a couple of reasons why that is, for example, the REC incentives. The way those were structured they were long term agreements. Those that do project development here know that a long term agreements can mean steady revenue streams, unlike in other areas which have spot markets and you cannot finance the projects because you don't have any guarantee of the revenue stream. It is very hard to finance long term and I think that Arizona has done very well.

Tom Cooper: What exactly are you looking for?

Franc del Fosse: We are looking for historical info about solar projects from around the state in your territory.

One of the issues that's come up is regarding contractors. Our Registrar of Contractors has a wide variety of licensing. These properties are owned by special purpose entities. One interpretation of that licensing says that you have to be licensed because you are entering into a Power Purchase Agreement which has some construction. So clarifying that issue can help clear up a lot. It is risky to enter into contract without a license because it may not be enforceable. Polly and Lon have been very helpful.

- **Transmission Subgroup – Laurie Woodall, Chair**

Laurie Woodall: Initially our group had come up with a rather detailed outline of what we thought our White Paper might look like. We've had a lot of discussion and input and I have been using that as a basis for our draft. I sent it out October 8 and have already received some feedback from Arizona Corporation Commission representative Mr. Olea, and some merchant folks and Mr. Fitzer. I'm hopeful that we will get that flushed out more and hopefully we'll be able to come up with some conclusions or recommendations because we don't have that yet at this point. There is a lot going on in transmission these days but I will not bore people with the intricacies of FERC Order 1000 but there have been a lot of compliance filings recently and I have been reviewing some of those to determine what commentary, if any, our report needs to include. And I've also been parsing through the CAL-ISO FERC Order 1000 compliance filing. There is nothing new in that because CAL-ISO has had a public process already indicating what they were going to do.

Leisa Brug: This had been an ever evolving process and I am amazed at what we have so far.

Laurie Woodall: There are so many end-notes and we are only part way through. Mr. Olea, may I ask what the status is of the BPA(?) is at this time?

Steve Olea: It should be on the December meeting.

Laurie Woodall: At what point do you anticipate the final report will be, has it been reviewed by all of the participants?

Steve Olea: Yes. We hope to get it out by the middle of November so it can be on December meeting.

Laurie Woodall: Thank you.

- **Final Report to Governor**

Leisa Brug: Based on the Executive Order we have until the end of December to get that to

her. My goal is to have it to her in the first 2 weeks in December, so that's why I asked for drafts now, to be in order by mid-November. So then at the next meeting, November 29, we as the Task Force can then vote on any additions we have made. Then after that we can put together final draft for review because as you all know we will not be meeting in December. I think that will be a very good process. If we can get all three of these completed by the end of November that will give us a couple of weeks to finalize formatting and then we can get it printed and to her. Is everyone ok with that schedule?

Laurie Woodall: Are you anticipating that there will be edits made subsequent to the date that it is submitted to the Task Force?

Leisa Brug: Nothing much more than grammatical or formatting. We have our deadline and the Governor is big on those. We have until the end of December, but our goal is within the first two weeks, and we would just like to have that done.

5. New Business

Leisa Brug: I just got back from the Border Energy Forum, headed by Texas, includes all the border states and all the Mexican states, unlike the AZ-Mexico Commission that I also participate in which is just us and Sonora. Michelle De Blasi was with me, and we had a nice time. It was well attended with around 300 people. We got a little further on the bi-national transmission - Laurie, I will update you a little later. We talked a lot about renewable energy development, wind and solar being top two for the region, but we also talked about energy storage, and natural gas, and there's a line being built to serve Sonora and other parts of that region. It was in Hermosillo, and was a very good meeting.

Michelle De Blasi: It was amazing to see all that was going on. The speaker was great.

Leisa Brug: They had changes last year to their constitution which allowed outside developers to come in and build 30 MW systems or less. There was a tremendous amount of coordination and things I haven't seen before.

Kate Maracas: Regarding the (?) we have to issue. Last year we might not have had to take that step and I'm wondering if there's been any sort of discussion about this?

Leisa Brug: It was discussed, and she is very interested in it. About that time, your project, Solana, and some of the other projects seemed to be moving through. She was proud of the way local jurisdiction handled everything even after some bumps that we all had to go through.

Kate Maracas: One of the elements of that which is being seen nationwide, is because the NEPA process and state process look so similar, the efforts that are required to do both are so similar, there is great redundancy. And to allow federal and state agencies to work together, not to eliminate one or the other but to simplify it. Laurie had a great idea -

Laurie Woodall: Some things can you do with commissions rule that would make it easier to incorporate materials. They're already in the rules. The applicant is already required to submit the NEPA document if there is one. The real issue is, as I understand it, is there is some concern about there being a joint effort on working on these. Because the state Siting Committee would be a decision-making body, subject to review by the Corporation Commission, that the problem is that they don't have that type of authority to take that sort of action to collaborate with the federal agencies. Now the Land Department does, ADOT does, DEQ does, and the State Historic Preservation Office does, but the Siting Committee really does not. But there are things that you can do in the rules with respect to documentation that needs to be submitted that would be under the purview of the Corporation Commission because they are their rules. There are things that you could do that would facilitate this; I don't know that you could completely expand the legal authority of the Siting Committee.

Kate Maracas: The PEIS created the solar zone released 6 days ago.

Leisa Brug: That would refocus that quite a bit, and we could have another meeting about just

this topic. To try to figure out if there is an appropriate place for it in the Governor's Office.

Laurie Woodall: Maybe there could be collaboration with the Commission because I know there is a precedent for that in the past. There has been an occasion in the past where a Commissioner has come over to discuss matters with the Governor's Office; I'm not sure if there is currently one who would be interested in doing that now. When I was the Chairman of the Siting Committee I heard that frequently - why are we going through this with you when we've already gone through another process with several agencies. The difference is that the federal process is a procedural process. They don't have to answer the questions in the same manner as they do with the Siting Committee. They are looking at the same stuff but the processes are really different.

Leisa Brug: I know California is looking at things like if you've met CEQA then you've met NEPA. I understand that and like it but I just need to see how to move forward with something like that.

- **Discussion of next year's topics**

Leisa Brug: I think you all got a request from Michelle about next year's report, you know we are always moving forward. We will be done with this one in December and starting off with new tasks in 2013. Last year we gave recommendations on what we thought the Task Force should do moving forward. We haven't spent a lot of time discussing that yet, but it's time to do it. I wanted you all to have some time to think about that and come up with some really good ideas for next year. We will be submitting the ideas in December and we will be filing our reports. Even though we are done, I think they are always working drafts, but we will be done filing them, anyway, and using them more as resources then, rather than working on them. We will need new committees for the new efforts, and we will select new committee chairs for those new groups next year. Some change in members will take place as well, some will be leaving and there will be some new ones. The Governor's Office of Energy Policy is going to keep it simple, and we are just going to be recommending the Master Energy Plan. So let's start.

Polly Shaw: I took part in the Arizona Corporation Commission Integrated Resource Portfolio workshop today. It was an interesting end to the meeting because it left me uncertain what was going to come out of the RFP planning in February or March as to what decisions will be made. For example APS has put forth four completely different scenarios and it sounds as if right now the RFP process does not come down with a firm decision on which path to go forward in the future. Maybe by February or so there will be a decision on which of the four paths to take, and maybe for the other utilities as well. I love the process, it is a very transparent and stakeholder friendly set of discussions that leads you to the four different opportunities in front of you for the Portfolio. I find that the Master Energy Plan parallel process will be a very valuable resource to work in tandem with the IRP especially if by February we are not coming out with a lot of clarity from market participants as to what the plan will look like. Having this additional Master Energy Plan with the refresher of the Solar Roadmap will be very valuable to the IRP and the IRP very valuable back to the Master Energy Plan.

Laurie Woodall: Just to clarify, you would like suggestions as to what the Governor's Office can do to facilitate the development of solar energy in Arizona? Is that the macro idea?

Leisa Brug: Like last year was identifying the issues and barriers that we are seeing. Then how can we work as a group on them collectively. This is not a closed discussion, so any of you out there may participate in presenting ideas, because you in the industry who are facing the issues. For example in the final report there are recommendations, should we take on those recommendations, or just a specific one of those recommendations that you feel would make a larger impact than some of the others? Or is there something that we are missing that

we should focus on?

Laurie Woodall: I am not unmindful that this the Governor's Solar Task Force and this is an undertaking of the Executive Branch, but perhaps one of the things we might want to consider going over is proposing some collaboration or input or joint activity from the governmental body that controls so much of the electric utility industry. It seems there should be some regularized input from the commission in attempting to resolve some of the issues of concern. Maybe that would be something to look into at the beginning of the year.

Polly Shaw: Is what you are suggesting different than them making public comments here?

Laurie Woodall: I'm talking about something at a higher level, with higher levels of communication that could occur, not just them coming as guest or visitors.

Amanda Ormond: There seems to be an overarching issue. Because of the RES there's a requirement at the commission, APS will be at 12% of the electric load that will be renewables when Solana come online when they are supposed to be at 5%. So where is demand at in the utility scale market? We need to review and come up with an enhanced renewable scenario.

Marty Shultz: Amanda and I are on same page, and Laurie as well, to credit APS for being ahead of schedule. To be at 12% instead of 5% should be a front page story, the implementation is a story. I think we need to describe the need for expansion as well. Some additional demand will come from Arizona, but the upside we know will be nowhere what we expect for our positioning here in the southwest. It is very transparent, while the Governor has taken the initiative on solar and some on transmission, I hope the Master Energy Plan is code for more about transmission, which should include states like California. What we have is political and in some cases procedural and can be overcome. But the Governor and the three branches need to come together to coordinate. This is urgent, not a generational thing, as it relates to transmission and needs to be facilitated and expedited. If there are three of us saying it and hopefully as clear as we can be, government at all levels and companies to work together on this. Palo Verde 4MW was very successful and we had this same exercise with nuclear years ago.

Leisa Brug: The draft MEP does include all branches, and we have 4 groups, ACC, ACA, us for the Governor's Office, and legislature with ASU. Otherwise it will be written and put on the shelf. This is part of her government reform, and this will be part of that. All of us will be together, and I think the interest is right and if we move faster than one year we could possibly lose valuable information and I don't want to lose credibility. We will have to wait for the election and then we can work with the legislature.

Glenn Hamer: If you take a look at where Arizona is right now, and Michael did a great job of pointing out, the momentum is in the right direction, and I think Leisa mentioned methodical, and that is very important also. So if we look at what's going on around the world then we are doing the right thing, and we all feel a sense of urgency, but we want to make sure that we keep things moving at a good pace. Kate brought up some fairly important topics we will review, and Franc del Fosse as well.

Michael Neary: I think Marty and Amanda said it well. I think then maybe we can work together and communicate together.

(Unsure of speaker name?): As a utility, I think that as a utility, I back Laurie, we are the ones who implement this policy and in the end you can't have a policy at the state level and another at the ACC and we get squeezed in the middle. Integrated Resource Plan is important, that's where our recovery is I think it is a good place to start and that's where all the data lives. As one who ends up being a member of a company, and we want to make sure as we roll out, that we will speak up.

Leisa Brug: You will be able to speak up during the MEP process. Our work is spilling over

into other states, and that's why Governor Herbert wants to make a 10 year plan. We are being looked at as a leader and I'm pleased.

Kate Maracas: It has to do with when we get to those specific measures, somewhere in the process of what Laurie mentioned, working with the legislature, and education. We have to figure out how to not get polarized.

Leisa Brug: Energy SPARK is an education component that we've put together in January and we are putting a video together for the legislators, 15-20 minutes long, and we will show it at this event, and give them a copy. The ASU group will then follow-up and answer any questions.

Jamie Kern: Will it be open to the public?

Leisa Brug: It will likely be a lunch type event just for the legislators. I have a meeting tomorrow about it, Energy Consortium, and Michelle De Blasi, maybe the Task Force can follow it up, and a team at ASU will be offering to do a follow-up for every single legislator. So they have an understanding of all aspects of energy.

George Seitts: I think that is very important. Those dynamics are so competitive, I know the Governor was just in Canada, some of the points we have just talked about, solar is a part of that, and then they are talking about natural gas, and coal guys are competing.

Leisa Brug: Because they've opened up the market. She is not looking to take credit as it is something she wrote, you all will be writing it. It is for the benefit of the state, to have a comprehensive plan.

George Seitts: You can't talk about energy without talking about commerce. I think that it is a huge piece.

Leisa Brug: So that is why Sandra is taking that on and please call me or email me, I want to be open with this. Reminder of next year's format:

- We will continue with the no 'call-ins' format; as stated in the Executive Order a member must vote in person.
- The Task Force will switch to quarterly meetings.
- Meeting dates will be chosen in advance.
- 2 consecutive meetings missed will be more than 6 months between meetings and it will be hard to stay up-to-speed with all that the group is doing, so we'd like to give an opportunity to serve on the Task Force to the next person in the queue.

- **Comments/Announcements/Upcoming solar efforts & events**

Mick Dalrymple: Solar home tour, this Saturday and Sunday. Information can be found at the www.AZSolarCenter.org website

Kirk Busch: Solar Praxis, downtown Phoenix, November 28 and 29, 2012.

Michael Neary: November 1 - AriSEIA meeting

Female: EUEC - National in Phoenix, it may overlap with your legislative update

6. Public Comments

No further comments from the public.

7. Adjournment

Leisa Brug adjourned the meeting at 3:44pm.

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